

Washington State

Aviation Planning Council

Long-Term Air Transportation Study (LATS)

Museum of Flight
Seattle, WA

November 1, 2007



Meeting Objectives

- **Get to know each other!**
- **Provide aviation system background**
- **Present LATS overview and key findings**
- **Develop charter and work program**
- **Discuss council admin issues and next steps**

What is the Role of the Aviation Planning Council?

- Recommend how to best meet statewide commercial and GA capacity needs.
- Determine which regions need improvement regarding matching of existing/projected airport facilities and the long range capacity needs of airports within the region expected to reach capacity before the year 2030.
- Recommend placement of future commercial and general aviation airport facilities designed to meet the need for improved aviation planning in the region.
- Include public input in making final recommendations.
- Submit recommendations to appropriate legislative standing committees, the Governor, the Transportation Commission, and applicable regional transportation planning organizations.

How Will the Council Fulfill its Role?

Recommendations by July 1, 2009

- What is the state's role in preserving and improving the air transportation system?
- What are the key challenges and opportunities facing Washington State in the next 25 years?
- How should alternative improvement strategies be evaluated?
- Which alternative strategies best meet the needs and serve the goals of Washington State?
- What should the state do to implement these strategies?

Some Critical Questions?

- Are we positioned to respond to rapidly changing aviation environment?
- Are we using our limited resources effectively and efficiently to meet the state's interests in aviation? What should our key priorities be?
- What strategic changes need to be made to satisfy the state's aviation policy, i.e., preservation, safety, capacity and environmental protection?

Our Primary Resource: LATS

- The Long term Air Transportation Study (**LATS**) was conducted at the direction of the Washington State Legislature to provide a solid foundation on which to make policy decisions and investments in Washington State's air transportation system.
- The LATS technical team
 - Gathered data on current system needs and conditions
 - Reviewed economic and technological trends
 - Developed aviation activity forecasts to 2030
 - Analyzed aviation capacity
- The work of the Planning Council is the third phase of a three phase study.

Introduction to Washington's Air Transportation System

Aviation Statutory Authority

- Chapter 47.68 RCW – Authorizes WSDOT Aviation to:
 - Governing authority and providing for the protection and promotion of aviation safety
 - Develop the statewide system of airports in cooperation with stakeholders.
 - Cooperate with federal authorities in the development of a national aviation system.

- Chapter 47.68 RCW – Authorized the Long-term Air Transportation Study (LATS).

- Chapter 47.01 RCW – Authorizes the Transportation Commission to:
 - Develop transportation policy in Washington State
 - Develop a comprehensive, multimodal statewide transportation system.

- Chapter 47.04 RCW – Requires state transportation agencies to:
 - Perform their duties consistent with policy goals set by the legislature for preservation, safety, mobility, environment, and stewardship.
 - The policy goals are established to support public investments in transportation.

What are the Investment Guidelines in the Washington Transportation Plan?

(adopted December 2006)

- **Preservation:** Preserve and extend prior investments in existing transportation facilities;
- **Safety:** Target construction projects, enforcement, and education to save lives, reduce injuries, and protect property;
- **Economic Vitality:** Improve freight movement and support economic sectors;
- **Mobility:** Facilitate movement of people and goods to contribute to a strong economy and a better quality of life for citizens; and
- **Environmental Quality and Health:** Bring benefits to the environment and our citizens' health by improving the existing transportation infrastructure.

Why LATs?

Looming Challenges Require a Statewide Strategy

- Unpredictable fuel tax revenues, shrinking federal budgets and rising infrastructure costs create uncertainty for future air transportation funding.
- FAA forecasts predict significant increases and changes in aviation activity by 2030.
- Emerging technologies present opportunities for improved air transportation access and will require enhancements to airport infrastructure.
- Washington lacks a statewide strategy to ensure adequate aviation capacity to accommodate predicted growth.

Three Phase Approach to LATS

Phase I: What we have.

Airport inventory, capacity and airspace assessment.

*Completed
September 2006.*

Phase II: What we need.

25 year commercial service market forecast, air cargo forecast, high speed passenger rail assessment; future capacity analysis, system requirements.

*Completed
July 2007.*

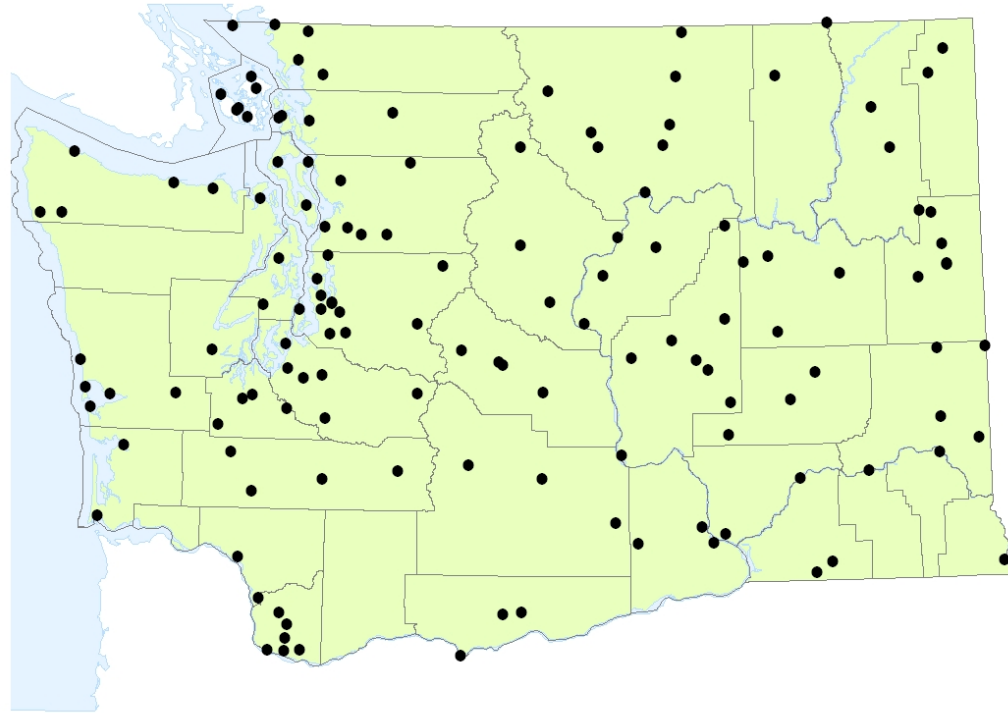
Phase III: How we meet the needs.

Governor appointed planning council to provide recommendations for future airport strategy and investment statewide.

*To be completed
July 2009.*

Washington's Air Transportation System

- 141 public use airports in 2005
- 66 airports included in National Plan of Integrated Airport Systems (NPIAS)
- Ownership:
 - WSDOT: 17
 - County: 10
 - City/Town: 44
 - Port District: 33
 - Joint: 5
 - Private: 32



Airports Provide Unique Transportation Access as Part of the State Multi-Modal Transportation System

Air Transportation Activities:

- Tourism/Personal travel
- Business travel
- Aviation-related business
- Freight, express and mail services
- Access to remote communities
- Agricultural activities
- Recreation
- Emergency medical transportation
- Search and rescue
- Firefighting
- Disaster management



Airports Make Significant Contributions to the Economy



Annual Contributions:

- 4 million takeoffs and landings
- 17 million enplaned passengers
- 600,000 tons of air cargo
- Economic impact (2001 study):
 - 171,000 jobs
 - \$4 billion in wages
 - \$18.5 billion in sales output

Source: LATS Phase I Report, 2007; Economic Impact Study, 2001 (based on data from 129 airports)

Airports Serve a Variety of Roles in the State Aviation System

Classification	No. of Airports	Description
Commercial Service	16	Accommodates at least 2,500 scheduled passenger boardings per year for at least three years.
Regional Service	19	Serves large or multiple communities; all NPIAS Relievers; 40 based aircraft and 4,000-foot long runway, with exceptions
Community Service	23	Serves a community; at least 20 based aircraft; paved runway
Local Service	33	Serves a community; fewer than 20 based aircraft; paved runway
Recreation or Remote	39	Other land-based airports, including residential airparks
Seaplane Bases	9	Identified by FAA as a seaplane base, unless it is a Commercial Service Airport

Washington Aviation System

Annual Airport Funding Facts

FACT: On Average \$49.6 million is made available each year to public use airports in Washington.

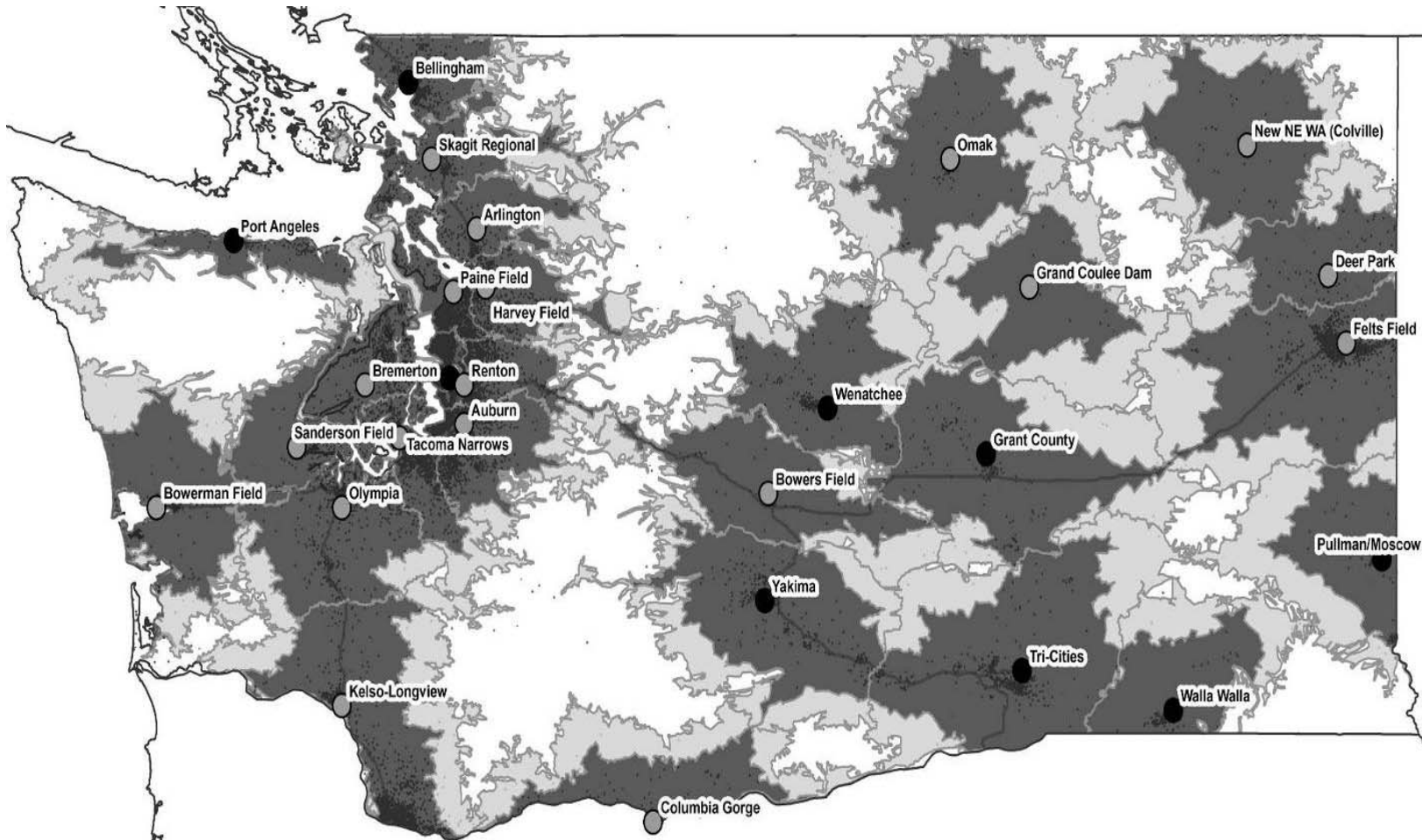
FACT: The annual appropriations for the Washington Department of Transportation is

- \$1.9 billion for capital improvements
- \$188 million for preservation, and
- \$165 million for maintenance projects.

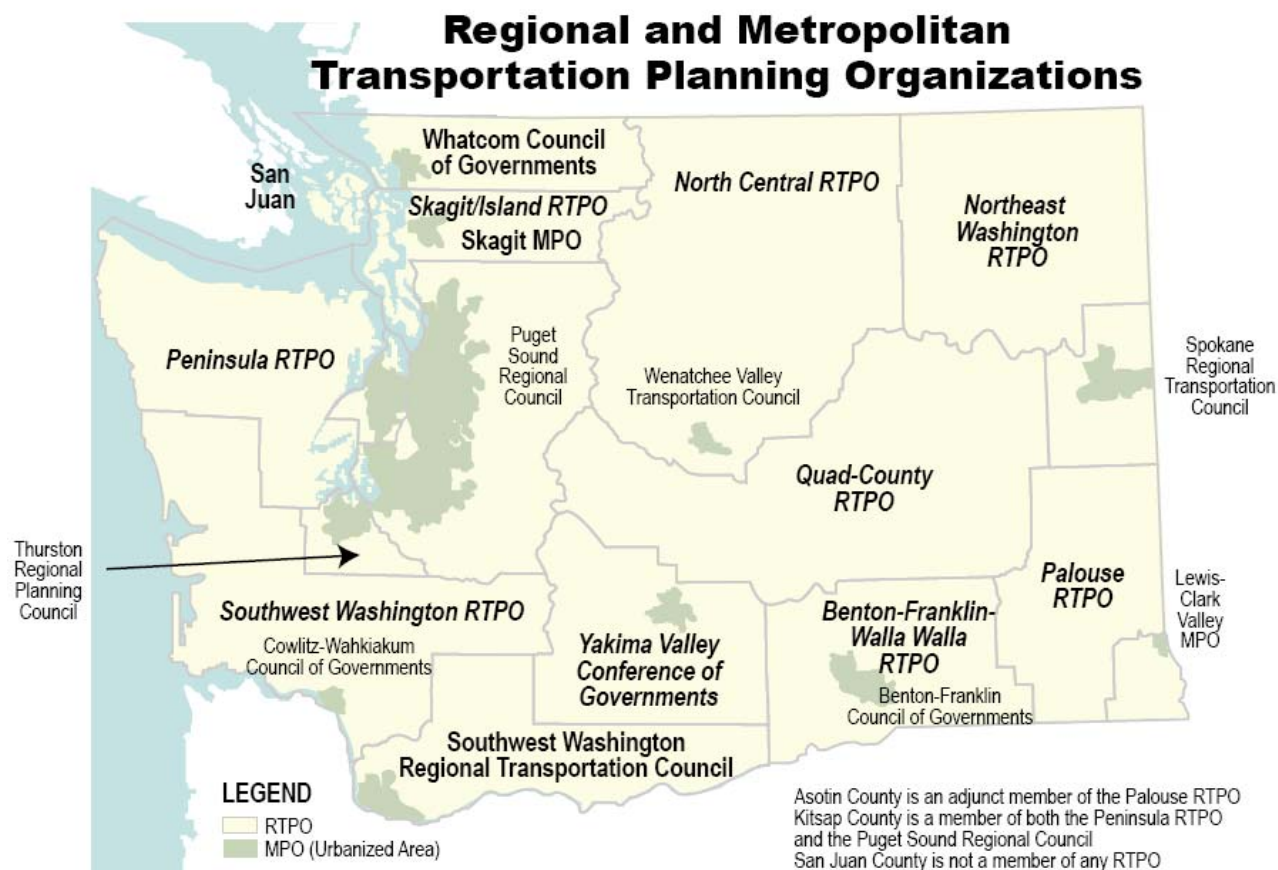
State Aviation Program	Average Annual Funding
State Local Aid Grant Program	\$1.5 million
Federal Grants to State	\$1 million
State Managed Airports	250 thousand
State Aviation Planning	365 thousand
Total	3.1 million

Federal Airport Funds	Average Annual Funding
FAA Commercial Service Airports (except Sea Tac)	\$30 million
FAA Reliever Airports	2.5 million
FAA General Aviation Airports	\$14 million
Totals	\$46.5 million
FAA Seattle-Tacoma International Airport	\$49 million

Washington's Public Use Airports are Geographically Dispersed and Provide Broad Coverage to Residents and Visitors to the State

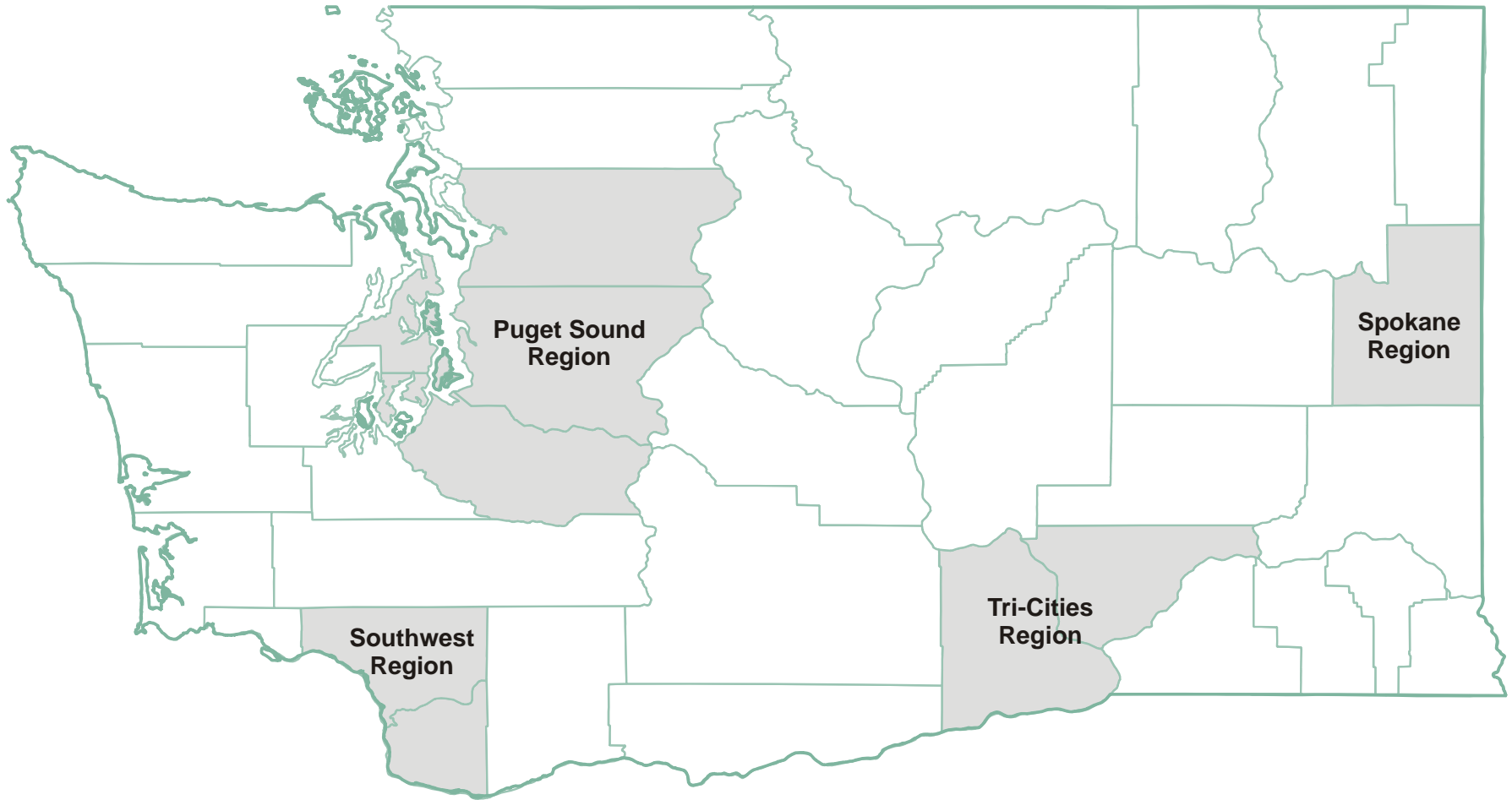


Washington's Public Use Airports Are Distributed in 14 Regional Transportation Planning Organizations (RTPO's)

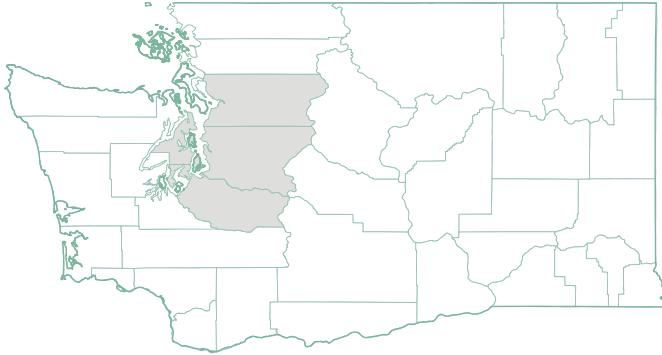


Source: Washington DOT.

The Legislature Identified Four Special Emphasis Regions for Detailed Aviation Analysis

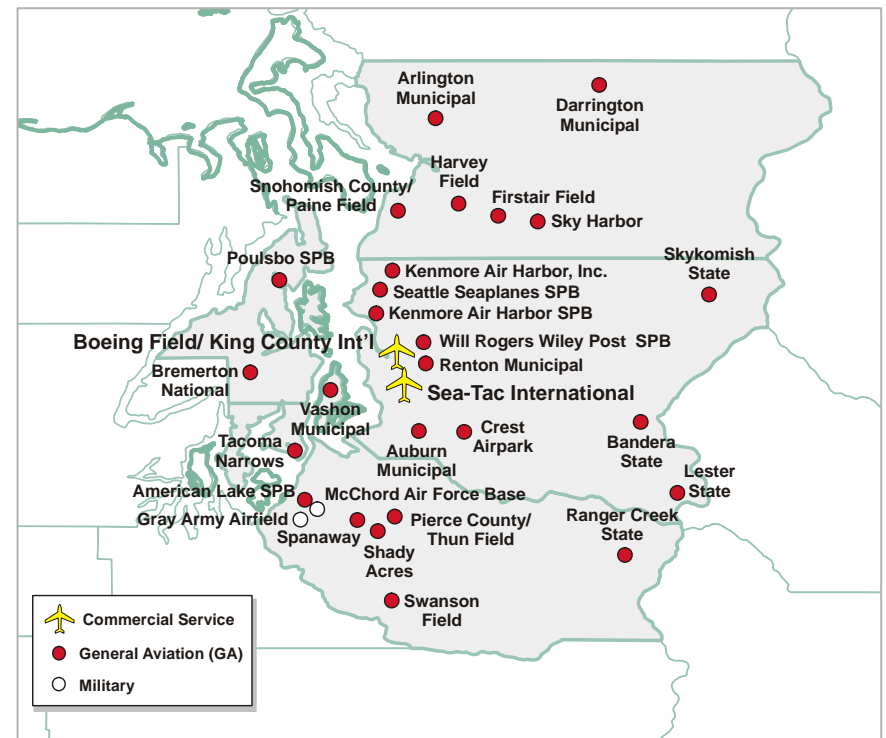


Puget Sound

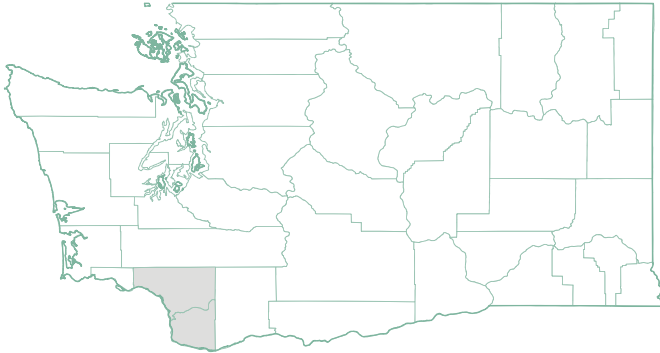


King, Snohomish, Pierce and Kitsap Counties

- 28 airports
- 2 military airfields
- 3.5 million population
- 15 million annual enplanements in 2006

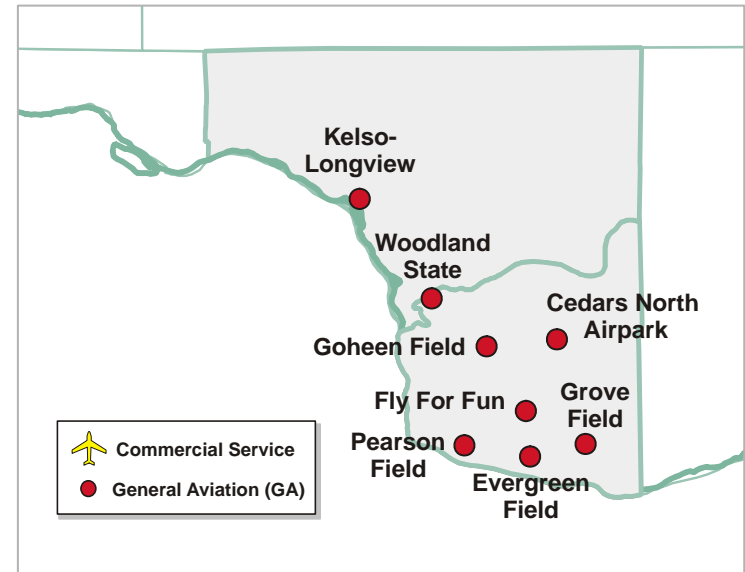


Southwest Washington

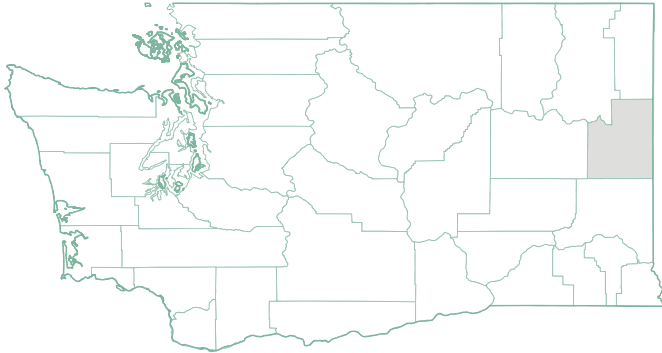


Cowlitz and Clark Counties

- 8 airports
- 4 airports are privately-owned
- 500,000 population
- Commercial service not reported in 2006



Spokane

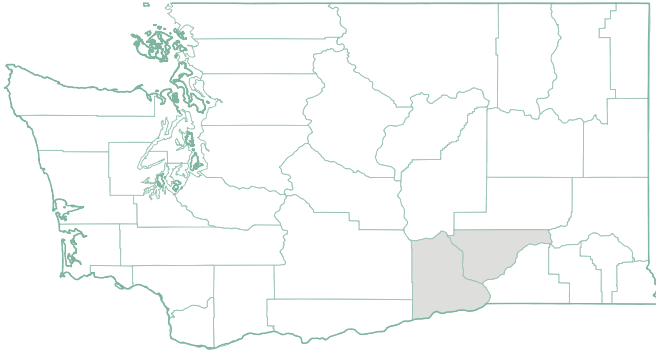


Spokane County

- 5 public-use airports
- 1 military base
- 440,000 population
- 1.6 million enplanements in 2006

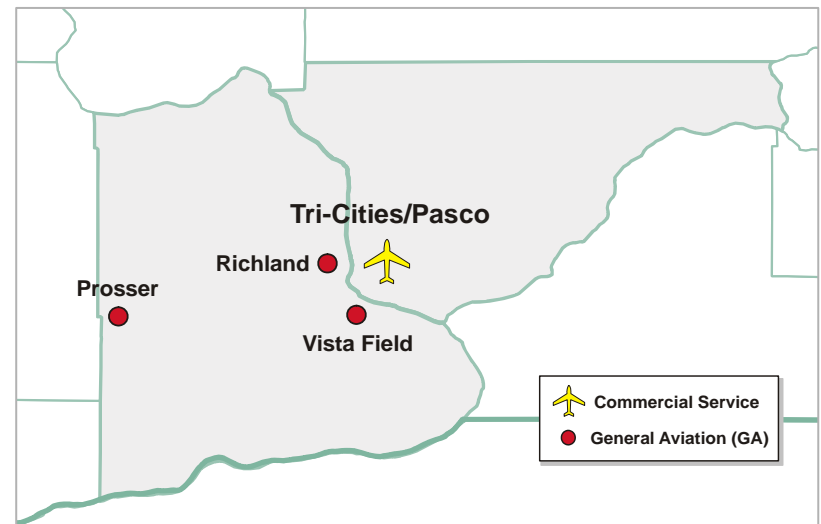


Tri-Cities Region



Benton and Franklin Counties

- 4 airports
- 220,000 population
- 225,000 enplanements in 2006



Technical Analysis Highlights:

LATS Phases I and II



**Washington State
Department of Transportation**

LATS Technical Analysis

Focused on Key Airport Issues (May 2006 – June 2007):

- Airport Assessment and Analysis of Facilities and Services
- Trends in National, Regional and State-wide Activity
- Demand Forecasts – Operations, Based Aircraft, Passengers, Cargo
- Current and Future Airport Capacity Utilization
- High Speed Passenger Rail Assessment

How Do We Measure Facilities and Services Performance?

State Classifications . . .

. . . identify an airport's role and contribution to the local, regional, statewide and national air transportation system

Performance Objectives . . .

. . . address a variety of facilities and services based on the airport's function in the system.

State Classification

Commercial Service

- Accommodates 2,500 or more scheduled passenger enplanements (Same criteria as the FAA)

Regional Service

- Accommodates a full range of aviation service/activities and aircraft.
- Serves large to medium market areas.

Local Community Airports

- Serves medium to small communities

Recreation and Remote

- Serve recreation communities or remote locations

Sea Plane Bases

- Serves amphibious and float-equipped aircraft

Performance Objectives

Airports were analyzed using nine performance Objectives.

■ Performance objectives included the following:

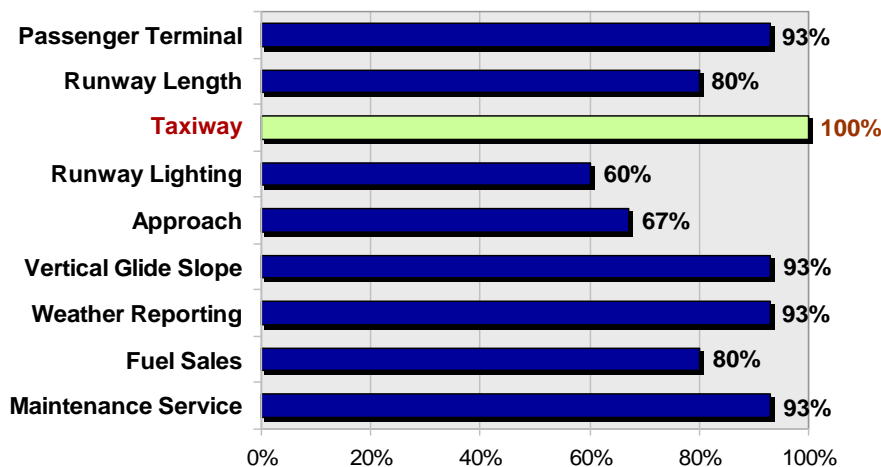
- Passenger Terminal
- Runway Length
- Taxiway Runway
- Lighting Approach
- Visual Glide Slope
- Weather Reporting
- Fuel Sales
- Maintenance Service

Commercial Service

15 Airports



Criteria	Explanation
Passenger Terminal	Yes
Runway Length	5,500 ft.*
Taxiway	Parallel
Runway Lighting	HIRL
Approach	Precision, or ½ mile visibility minimum
Visual Glide Slope Indicator	Yes
Weather Reporting	AWOS or ASOS
Fuel Sales	100LL and Jet A
Maintenance Service	Full Service FBO and major maintenance



Gaps in
Facilities and
Services

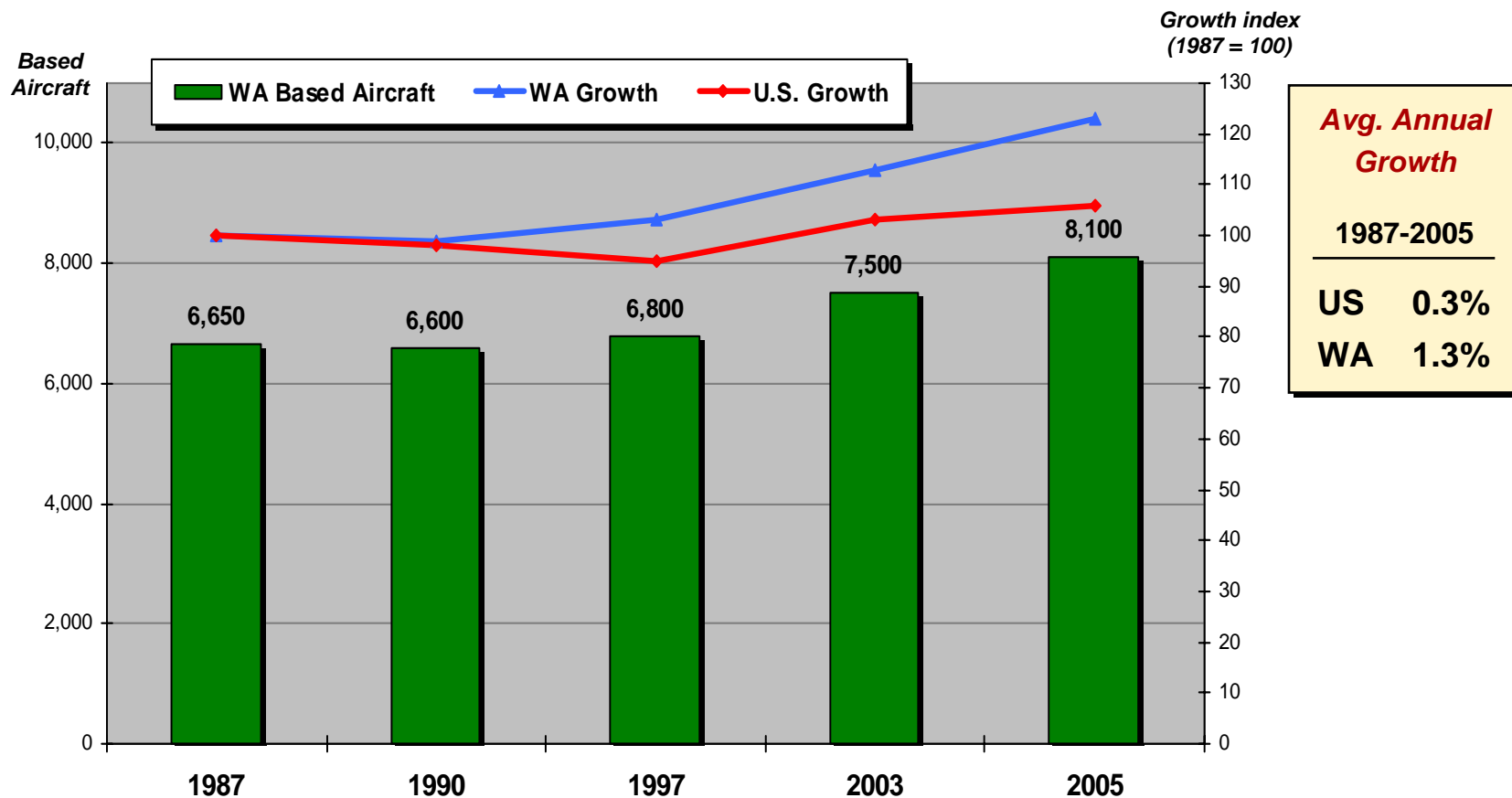
General Aviation is a Significant User of Washington's State Airport System

- General aviation operations represent 82 percent of the total aircraft operations in Washington State
- GA is the predominant class of aviation activity at 122 of Washington's public use airports
- The state's GA airports serve a broad range of activity
- GA provides the benefits of aviation to communities lacking commercial air service airports

Source: LATS Phase I and II Analysis, 2005

Over the past 18 years, growth in GA activity in Washington State has outpaced the U.S.

Washington State Historical Based Aircraft vs. U.S. as a Whole
1987 - 2005



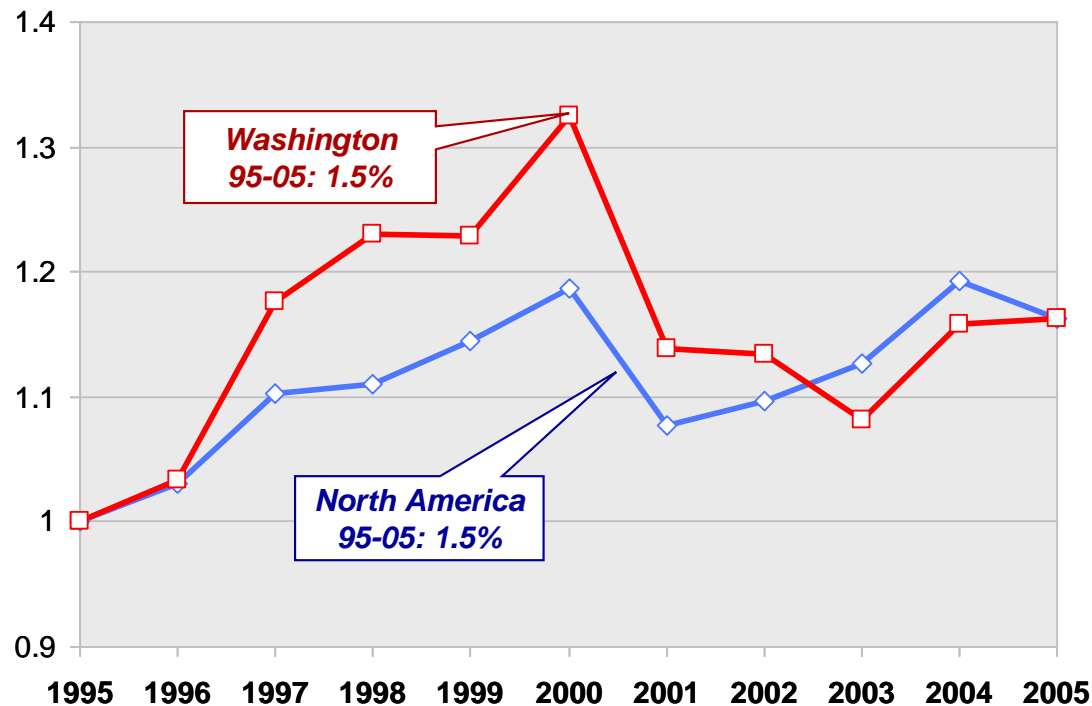
Sources: FAA 2006-2017 Aerospace Forecast, WSDOT, WA 2006 Airport Inventory Survey

Air Cargo Activity Encompasses Three Components

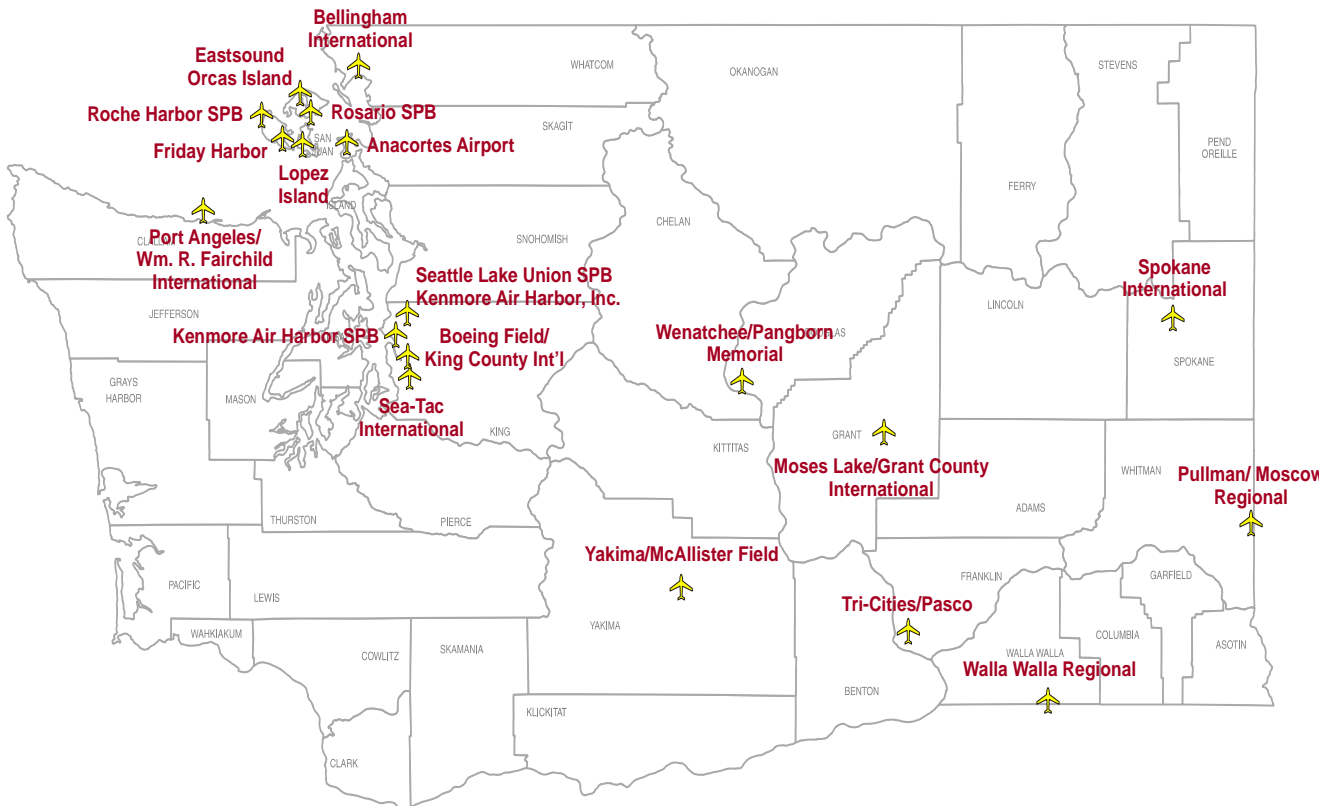
- **Freight:** all-freight airlines and in the “belly” of scheduled passenger flights.
- **Express Freight:** transported by integrated express carriers principally overnight or deferred envelopes, pouches and boxes, but some larger freight items
- **Mail:** air mail carried in belly of commercial planes and as freight by FedEx under contract with United States Postal Service (USPS)

Washington's Growth Has Tracked the US Average

- Air freight in Washington and in the US overall has grown at a rate of 1.5% per year over the past ten years
- Washington's overall growth is forecast to follow the US average at 3.8% annually, based on the Boeing forecast



There is Wide Variation in the Amount of Passenger Traffic and Commercial Operations Among Commercial Airports



Measures of Commercial Activity:

Annual Passengers

Weekly Seat/ Aircraft Departures

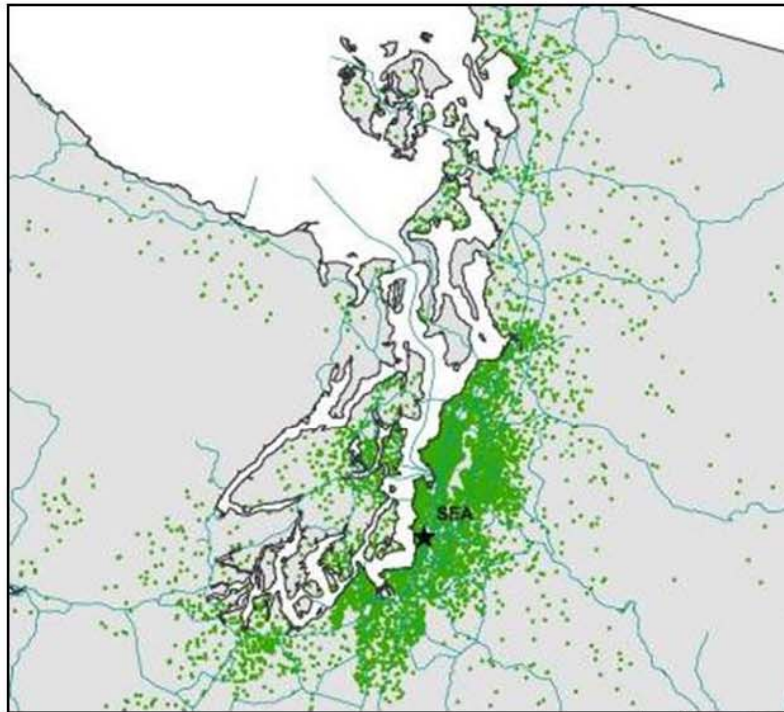
Number of Nonstop Markets

Average Load Factors

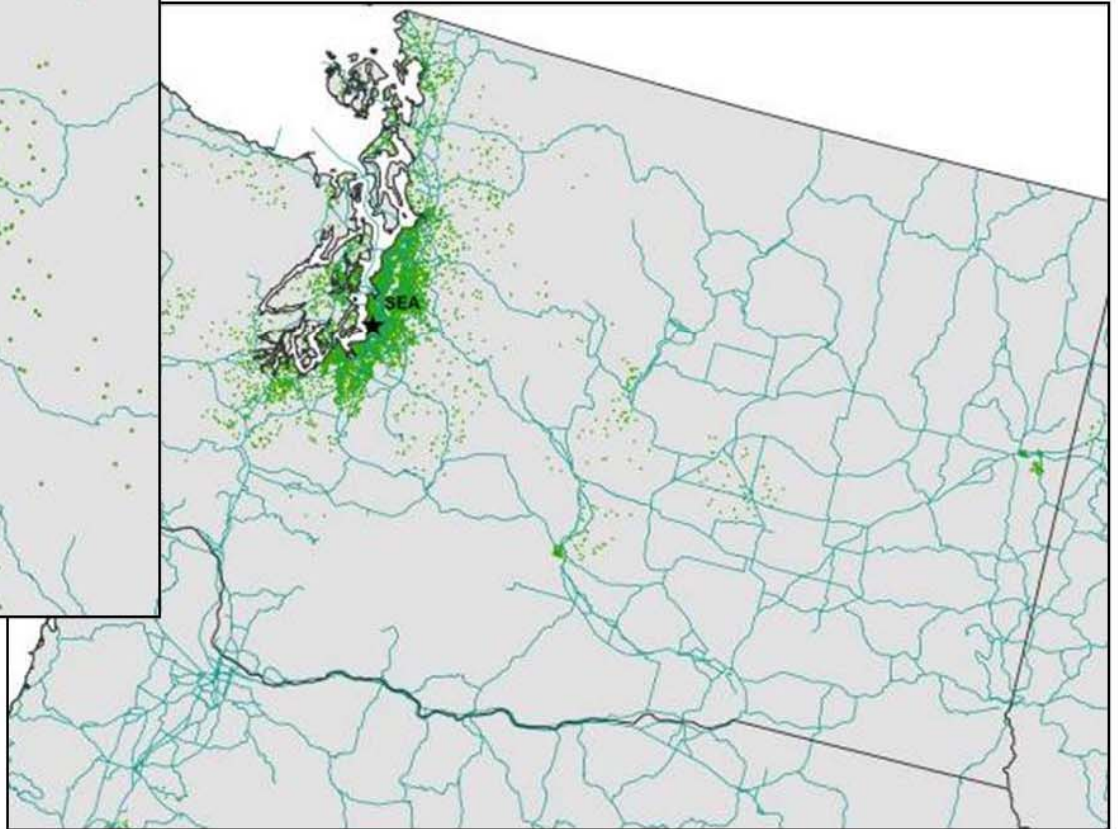
Growth Trends in Service/Passengers

Sea-Tac is the Dominant Commercial Airport - - Attracting Passengers from Across the State

SEA-TAC Survey Passengers By Ground Origin
One Dot Represents 1,000 Passengers



Puget Sound Region



Total State

Many Smaller Commercial Service Airports Have Lost Air Service in the Last 10-15 Years

- Since 1995 all airports except Sea-Tac, Boeing Field and several San Juan Island airports have lost some level of scheduled air service
- 6 Airports in Washington have lost scheduled service entirely
- Some communities have significant leakage rates to larger surrounding airport due to greater availability of air service and lower fares

Source: Official Airline Guide 1990-2005

Many Smaller Commercial Service Airports in Washington Have Lost a Considerable Amount of Air Service Since 1995

Percentage Change in Weekly Scheduled Seats *August 1995 – August 2006*

Airport	Percentage Change	Absolute Change
Seattle Boeing Field	275%	539
Roche Harbor	114%	224
Rosario	114%	224
Westsound	114%	224
Seattle/Tacoma	3%	13,515
Bellingham	-11%	-447
Walla Walla	-20%	-225
Spokane	-23%	-12,667
Pasco	-25%	-2,037
Oak Harbor	-35%	-208
Moses Lake	-54%	-396
Wenatchee	-57%	-1,362
Friday Harbor	-57%	-1,025
Yakima	-61%	-2,398
Pullman/Moscow	-68%	-2,223
Seattle Lake Union SPB	-71%	-1,120
Lopez Island	-80%	-854
Kenmore	-86%	-805
Port Angeles	-89%	-2,420
Olympia	-100%	-312
Center Island	-100%	-525
Decatur Island	-100%	-525
Blakely Island	-100%	-532
Anacortes	-100%	-707
Eastsound	-100%	-932

- Except for Sea-Tac, Boeing Field and Select San Juan Island Airports, All Others Have Lost Seats Since 1995
- 6 Airports Have Lost Service Entirely
- In Many Cases, Competing Carriers Have Exited the Market Completely, Leaving a Single Carrier – Horizon – Which Has Reduced its Own Service Frequency
 - Partly Offset by Horizon's Replacement of 19-Seat Metros With 37-Seat Dash 8's

Source: Official Airline Guide

LATS Utilizes Five Airport Capacity Measures

- **Airfield and Landside Capacity:** the ability of an airport's runway system to accommodate take-offs and landings without experiencing delays.
- **Commercial Airline Passengers:** the ability of an airport terminal to accommodate passengers.
- **Air Cargo:** the ability of an airport to accommodate processing of air cargo tonnage using existing facilities.
- **Aircraft Storage:** the ability of an airport to accommodate storage of based and transient aircraft in tie-downs and hangars.
- **Airspace System:** the ability of available airspace to safely and efficiently accommodate aircraft in transit between airports.

Highlights from Phase I and II

- Seattle-Tacoma International Airport will be at capacity by 2024
- Overall in the next 25 years there is substantial capacity in the aviation system statewide. However, available capacity is located in areas with low demand.
- Market and forecast analysis showed that growth in GA activity exceeded the national average.
- Air Service at many small communities is at risk due to changing airline trends and market conditions.
- Every airport in the system is important - especially in areas with rising aviation activity. Airport closure or redistribution of aviation capacity may have cascading effects on other airports within the region.
- 15 airports have air cargo activity. The top 3 airports (SeaTac, Boeing Field and Spokane) account for over 98% of all air cargo activities.

How Will this Information be Used in Phase III?

- Review Key Findings
- Identify Challenges and Opportunities
- Formulate and shape state aviation policies
- Discuss Strategies to Meet Existing and Future Needs

Council Work Program & Administrative Issues

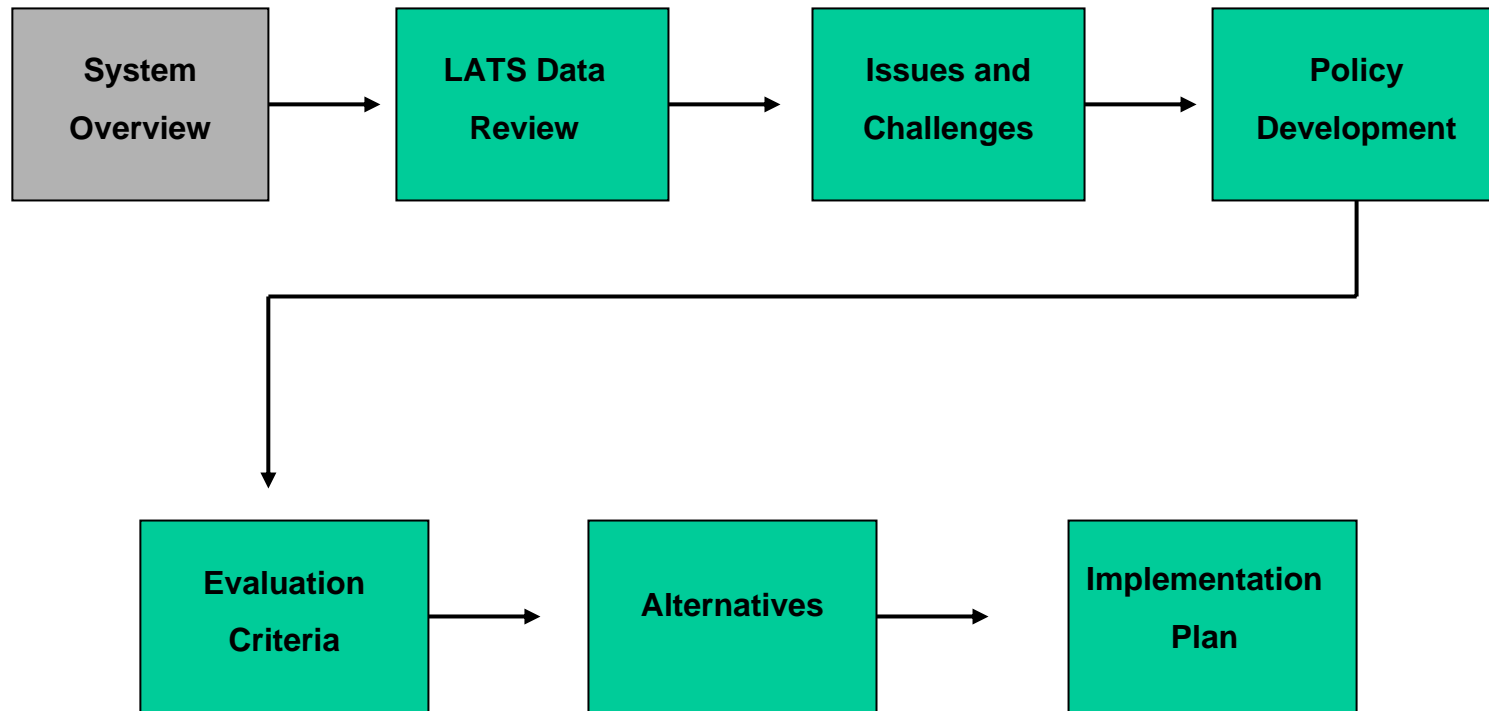


**Washington State
Department of Transportation**



**Washington State
Department of Transportation**

Decision Process



Decision Process Fundamentals

- **Consensus decision making model will provide decision makers with tools they need to make informed decisions.**
- **All points of view will have an opportunity to be expressed and recorded.**
- **Creative alternatives, and compromise will be encouraged**
- **May use other forms of decision making (individual, compromise, majority rules) when appropriate.**

Public involvement structure to support key Council actions

■ Public information program

- Targeted information to assure that stakeholders' information needs are met.
- Website will provide on-going and current information on Council deliberations and technical studies.
- Public information tools to include written and electronic information and media outreach.

Public involvement structured to support Council key Council actions

Other Public Outreach Tools

- Written and oral comments
- Council meetings open to public
- Regional meetings
- Speakers bureau
- Briefings
- Innovative Tools
 - Electronic town meetings
 - Statewide on-line random sample survey

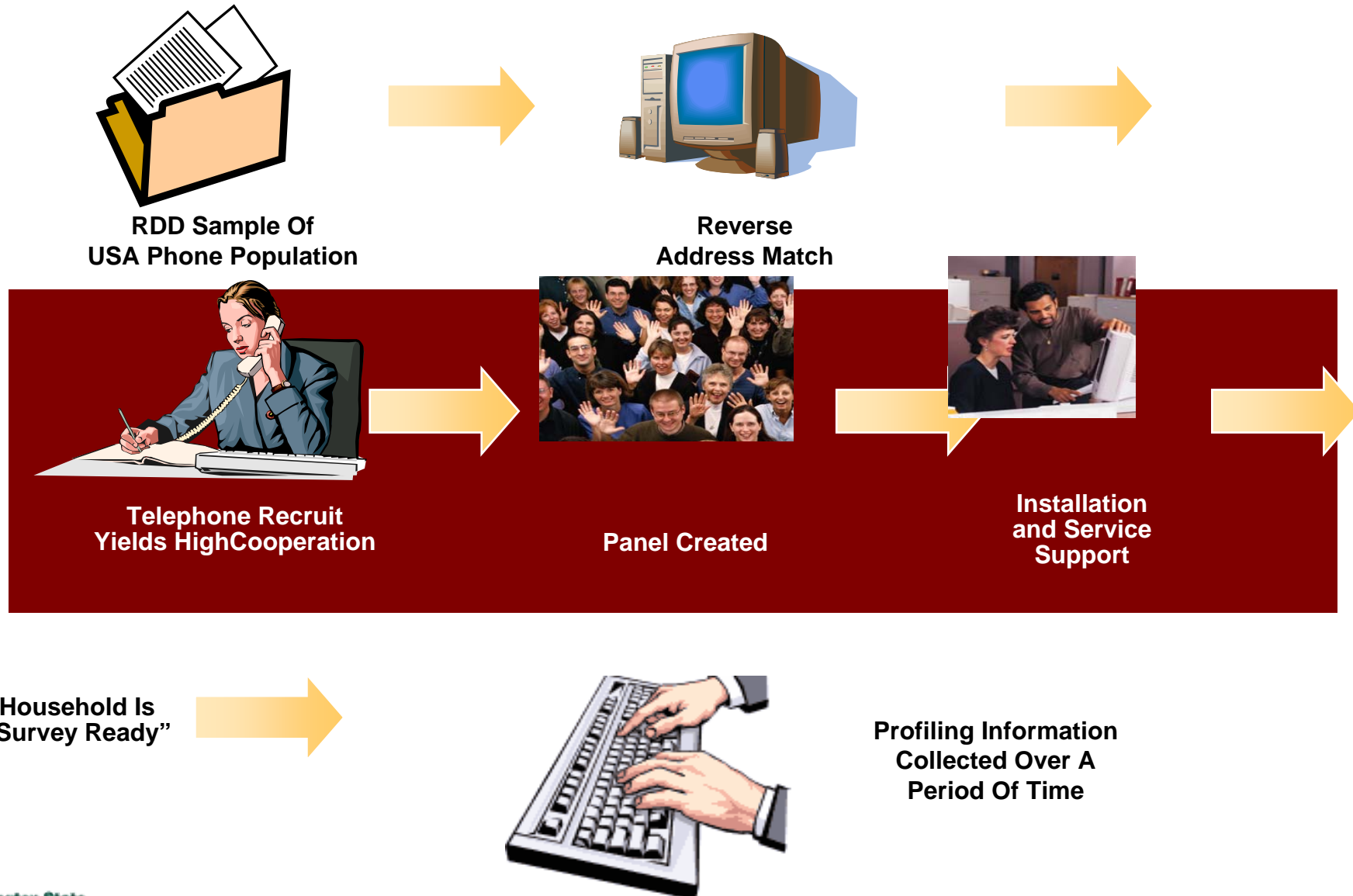
Partnership with Knowledge Networks (KN)

- **On-line consumer and public opinion research tool using randomly pre-recruited panel members.**
- **Those without computers are provided with computers.**
- **Methodology supports decisions by reducing survey bias.**
 - Coverage: Draws from full population spectrum – those with or without Internet access
 - Selection: Respondents selected via random sampling
 - Non-response: KN makes repeated attempts to involve non-responders; intensive panel management.

The KN Panel is statistically valid

- Panel members are randomly recruited by telephone and provided with access to the Internet.
- Panelists are paid for their participation. No volunteers allowed.
- KN captures the full range of citizens and accurately represents the population.
- The KN panel is compared to the Census CPS on a monthly basis.
- The panel is representative of population minority groups.

The KnowledgePanelSM recruits panelists via RDD



LATS Electronic Town Hall Meetings

- **150 participants per meeting, selected from KN statewide sample; provided a stipend for their participation.**
- **60 minutes long.**
- **Interactive and moderated in an interactive chat environment.**
- **Includes visual and graphic displays.**
- **All communication is saved as data.**
- **Meetings timed to support Council's decision process**
 - Problem definition phase
 - System investment alternatives.

Topic: Welcome to our chat.

There are 6 people in this room

LukeW: Hello?

UtadaH: Hey, Luke. Welcome!

[ChaiT]: Hiya.

LukeW: Hi, Utada.

Chai, are we starting in a few minutes?

Send

Welcome to our first chat!

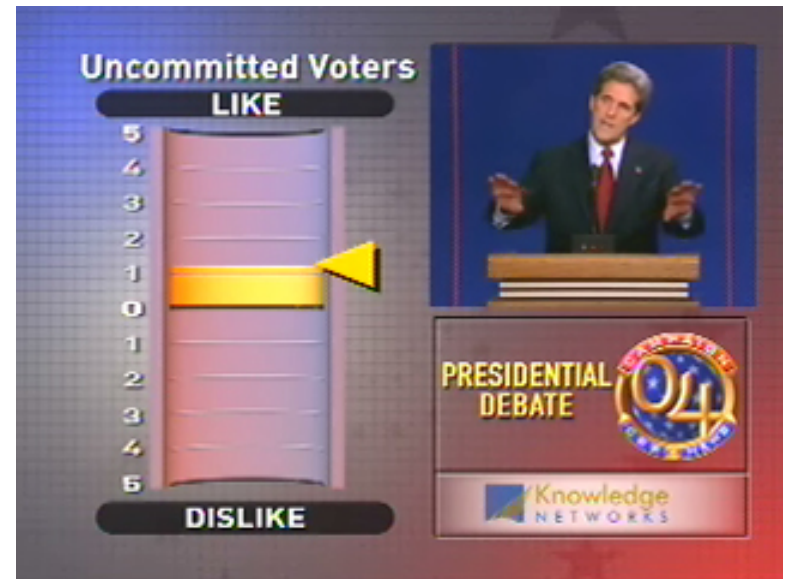


LATS Statewide On-line Survey

- **1,000 randomly selected Washington State residents sampling (RDD) pre-recruited by KN.**
- **15 minute survey.**
- **Assesses public opinion on the issues and alternatives.**
- **Can include some static graphics, such as maps or charts.**
- **Conducted prior to final recommendations of Council.**

Example: 2004 Presidential Debates

- During the 2004 presidential debates, a scientific sample of uncommitted voters on the KN Panel provides CBS News moment-by-moment real time feedback on cbsnews.com.



How will this support LATS outreach?

- Will be conducted in addition to traditional outreach methods.
- Provides opportunity for higher quality input across geographic distances.
- Will provide representative input:
 - Electronic Town Halls
 - *Representative sample, geographically dispersed*
 - *Cost effective*
 - *Moderated, with ability to present complex information in graphic form*
 - Electronic Survey
 - *Representative sample*
 - *Ability to present complex information in graphic form*

Proposed Charter

The Charter addresses

- **Purpose and authority**
- **Membership**
- **Structure**
- **Responsibilities**
 - Council members
 - Staff
 - WSDOT Aviation and technical consultant team

Proposed Schedule

TASK	2007	2008												2009					
	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
PUBLIC PARTICIPATION & OUTREACH																			
Public Involvement (Town Halls/Regional Public Meetings)																			
COUNCIL REVIEW OF BACKGROUND ANALYSIS																			
Review of Phases I and II Data Analysis (Existing Facilities&Services/Aviation Trends/Demand Forecasts)																			
SUPPORT MATERIALS & ANALYSIS																			
Policy Support and Review																			
Assessment of Military Airfields For Civil Airports																			
NPIAS Review and Recommendations																			
ALTERNATIVES ANALYSIS & ACTIONS																			
Statewide Aviation System Alternatives																			
Develop Funding Packages and Determine Legislative Action																			
STATEWIDE IMPLEMENTATION PLAN																			
Statewide ACIP and Implementation Procedure Strategy																			
AVIATION SYSTEM PLAN DOCUMENT																			
Aviation System Plan Working Draft																			
Aviation System Plan Final Documents Preparation																			

Meeting Schedule

- **10 Council Meetings are proposed.**
- **Meetings will be held in the Seattle (65%), Spokane (20%) and TriCities (15%) areas.**
- **Meetings are proposed to be between 3 and 4 hours.**
 - 3rd Wednesday of every month
- **Subject Areas will include:**
 - State and Federal Transportation System Planning
 - Aviation Trends
 - General Aviation Capacity
 - Commercial Aviation Capacity
 - Air Cargo Capacity
 - Airspace Capacity
 - High speed Passenger Rail Assessment
 - Alternatives Analysis
 - Implementation

Administrative Procedures: Travel and Meal Reimbursement

- Resources:
- Aviation Planning Council Travel and Meal Reimbursement
- WSDOT Travel Expense Voucher

Procedures:

- Contact WSDOT Aviation for all travel arrangements to ensure reimbursement
- Send all expense claims on *WSDOT Travel Expense Voucher* with original receipts
- Marilee Pribble is main contact – 360.651.6302 or pribblm@wsdot.wa.gov

Next Steps

- **Select Vice-Chair**
- **Approve Charter**
- **Approve Public Involvement Plan**
- **Review of LATS study findings**
- **Proposed date for next meeting:**
JANUARY 16, 2008*

Do 3rd Wednesdays work for members of the Council?